SBIR Newsletter December 2002

- **Feature Story:** The Fork in the Road: Selecting a Commercialization Strategy
- **Competition Tips:** Competition Tips from YES Technologies on Selecting Licensees
- **Award Winners, National Workshops, and Resources**

If you have questions or subjects you would like covered, please contact Linda Brander, SBIR Outreach Coordinator or call (406) 841-2749.

1.0 The Fork in the Road: Selecting a Commercialization Strategy

Could you set a price for your technology or product, and then just walk away from it knowing that the buyer hopes to never hear from you again? It's the perfect solution for inventors who want to concentrate on creating new innovations. For other SBIR candidates, however, coming up with a commercialization strategy isn't that easy. You might know you want to get your innovation to market, but do you know your options?

"Basically, there are two strategies for commercializing a technology, product or service. Either you license or sell it to someone else to produce or you do it yourself," says Marcia Rorke, President, Mohawk Research Corp., Rockville, MD. "Both choices have implications you'll need to consider as you go along."

The Drawbacks of Licensing

- You lose control. Unimaginable to many innovators, licensing is giving up control of your technology, product or service for a long time and maybe forever.
- Your involvement is minimized. You may arrange to serve as a consultant, but typically the licensee takes over and you're no longer needed.
- Finding the right licensee is tough. And you don't want to license it to the wrong one. Your technology could be buried, mangled or lost forever if it gets into the wrong hands.
- Protecting your interests is difficult. But crucial. "Good licensing agreements result from tough negotiations by both parties," Rorke says. The other side has experts to represent it; it is imperative that you bring in someone with expertise in licensing negotiations to represent you as well.

The Advantages of Licensing

- You have more resources to develop your invention. Presumably, the licensee has the resources to immediately begin developing, producing and marketing your innovation (if not, why would you license it?).
- They see things you don't. A different perspective often leads to more options and thus more markets. The more markets, the more income.

- You might make some money and soon. Some license agreements include an up-front payment or minimum royalties for a period of time, or perhaps both.
- You are free to do something else. Wanting to move on to the next thing is the biggest reason many SBIR candidates choose to license their technology, product or service.

The Drawbacks of Doing It Yourself

- It's risky. The majority of new businesses fail. Poor management skills, poor planning, the inability to delegate and inadequate financing are just a few of the reasons that start-ups face an uphill battle. A new business built around a new technology, product or service faces even more risk.
- Limited resources. Money is the most common obstacle for start-ups. In all likelihood, you are going to have to raise capital to commercialize your innovation and that requires specialized skills. If no one in your organization is an expert at this, you'll need to hire a professional.
- You'll be spread increasingly thin. The further you go along the commercialization path, the more there is to do. You'll spend more and more time trying to do it all or trying to find the help you'll need.
- You probably won't make much money for quite awhile. Building a business gobbles cash. If you find a company to invest in your organization, you might be able to give yourself a modest salary but your backers will expect you to be frugal.

The Advantages of Doing It Yourself

- It's exciting. If you have the will and the skill, it could become your passion.
- In the long run, you could make a lot more money. If your innovation is a big success, your financial rewards could vastly exceed the royalties from any licensing agreement.
- You might find someone to run it for you. A good management team can take care of day to day operations, allowing you to retain a large or controlling interest in your company while freeing you to do something else.

What You'll Need

You can start developing your commercialization strategy during your Phase I grant period, but each option has its own prerequisites. To license your technology or product, it needs to be patented, copyrighted or have some other legal protection, and you need at least a working model, better yet an engineering prototype. In addition, you need credible market and cost data. A venture capital firm will no doubt require the same information as well as a business plan.

Know your Mind Before you Decide

Part of deciding on a commercialization strategy is deciding on your exit strategy because, whether you license or look for venture capital, you will be giving up some control. “In a sense, therefore, you’re not deciding whether or not to get out, but when, how completely, under what circumstances and by what method,” says Rorke.

Another factor in choosing a commercialization strategy is knowing your own mind. Do you want to run a business? Or are you more interested in inventing or developing ideas? If you aren’t sure, check your local library. There are numerous books available that can help you decide where your passion and talents would do best. The Montana Department of Commerce SBIR Outreach Program can help as well, as can private consultants such as Rorke.

Information for this article comes in part from the U.S. Department of Energy publication From Invention to Innovation, written by Marcia Rorke and David Lux, Mohawk Research Corp. See the Resources section of this newsletter to learn how to obtain a copy of this publication as well as for contact information for Mohawk Research.

2.0 Competition Tips from YES Technologies: How to Dance with Potential Licensees

As research director of YES Technologies and an multi-SBIR award winner, Bob Hunter has guided several inventions along the road to commercialization. Now located in Kamuela, Hawaii, YES Technologies licensed two groups of patents and sold two patented technologies during its 14 years in Bozeman. Hunter offers the following competition tips for licensing your innovations.

Carry protection

“Companies don’t pay money for new ideas, they pay money for intellectual property,” says Hunter. Studies have shown that it takes 7 to 10 years to go from idea to full production, using up nearly half of your 20-year patent protection. “That shows how important patents are. Not only do you need to protect your idea while you develop it, you also need to have proprietary barriers in place for when you or your licensee introduces it into the marketplace.”

Commit to a long courtship

Don’t underestimate the time and resources needed to license your innovation. It can take months if not years to identify, contact and build relationships with potential licensees. “We had an average of seven people working for us and at least one person was doing marketing full time. We spent at least $50,000 a year trying to find people who were interested in negotiating with us,” Hunter says.

Once you've found a potential match, plan on several months of back-and-forth negotiation of terms before finalizing the deal. "Negotiating a license agreement takes about nine months, on average," Hunter says.

Look in all the right places

When it comes to identifying potential licensees, Hunter recommends starting with at least 20 companies that manufacture and sell products in your innovation field. Do a web search, either using a search engine or a web-based directory such as "Thomas Registry of American Manufacturers" (see Resources). Look for second- and third-tier leaders as they are usually more open to outside innovations than are the big market leaders. Also, don't forget to analyze supply chains; perhaps your technology is a better fit further down the chain rather than with the company making the end product. The more contacts you make, the more industry buzz there will be about your innovation. Many of YES Technology's contacts were companies whose competitors had told them about the company.

Once you have your list, start contacting marketing departments. "These are the people who get the bonus money if the company's sales are projected to go up, so they tend to be bigger risk-takers than those in a corporate R&D or new product development department. You'll still have to deal with the others, but a marketing person can be your internal champion and help you work through the system."

Corporate personnel tend to move around a lot (or be down-sized), so talk to at least three people in each company if you can. It generates momentum for your idea and expands your pool of potential licensees. "We followed one marketing guy through three companies. He was fired up about our child-resistant packaging idea and promoted it each place he worked," Hunter says.

Show them you care

Once you've made contact with the marketing people, you'll need to court them. If they express interest but aren't ready to commit, follow up every three to six months or so. Your goal is to build a trusting relationship. Ask open-ended questions (who, what, when, where, how) about what they need and listen to what they tell you.

How much and when you tell potential licensees about your innovation will depend on your situation. In general, though, tell them only what they need to know at each point they need to know it. "Get a confidentiality agreement before disclosing confidential information, preferably a two-way agreement and in writing," says Hunter.

Keep negotiations friendly but frank

Don't stop talking to your other hopefuls just because one of your potential licensees wants to get serious. Stay in touch but tell them you've begun negotiations with another company. It keeps the relationship in tact and may even push one of them to ante up.

If possible, have the negotiating company sign a "stand-still" or option agreement, in which it agrees to pay you to stop marketing while it does its own detailed evaluation of the innovation. To begin negotiations, get a term sheet from an attorney or other resource that specifies the basic points to be covered in a license agreement. Keep the initial negotiations at a fairly broad talking-point level, honing down to specific terms of agreement over time. You'll want your attorney to finalize the agreement but bring him or her in at the end of the negotiations. "It is difficult enough to come to an agreement when everyone is friendly. If you have someone involved from the beginning who's job is to think about everything that can go wrong, you'll get bogged down on improbabilities," Hunter says.

One of the first points of negotiation will be the type of license agreement. Does the company want exclusive rights? And if so, is it willing to pay what you've determined as your minimum requirement—that is, the minimum payment you are asking the company to guarantee for an agreed-upon number of years? "We had determined that the entire market for our child-resistant packaging was worth $4 billion a year. At first the company we were negotiating with wanted the entire market, but when we said that our minimum requirement would be a payment of $1.25 million a year for two years, the company changed its mind and accepted a non-exclusive license," he says.

Obviously, the more you know about how the market for your innovation, the bigger advantage you will have in these negotiations.

Look to the future

The negotiations will clarify what if any ongoing involvement you will have with the licensee. In one instance, YES Technology's licensee paid the company to develop a commercialized product for it; in another instance, the licensee told Hunter and his coworkers basically to "go away." Be prepared for either by knowing what you want going into negotiations.

Also realize that a licensing agreement is only a promise to pay you money if the licensee continues to want to. The licensee can always take the exit strategy built into the contract, or in a worst case scenario, not abide by the contract forcing you to take legal action. "That's another reason to make these agreements win/win," says Hunter. "You want everybody to feel that they got a good deal and were fairly treated, so they are still fired up to do what they've agreed to do. An unmotivated licensee just isn't going to work out."

3.0 Awards

Congratulations to the following SBIR/STTR award winners!

<u>Phase 1 STTR</u>

Company: ADVR Inc.
910 Technology Blvd Suite K
Bozeman, MT 59718-4012
Voice: (406) 522-0388
Fax: (406) 522-0387

Award: $99,000 (approximate)
Principal Investigator: Dr. Kevin Rapasky
Co-Principal Investigator: Dr. Tony Roberts
Target Agency: NASA
Phase I Topic: Cascaded Injection Locked Diode Laser Transmitter for Lidar Measurements

Phase I SBIR

Company: Visual Learning Systems, Inc.
4600 Scott Allen Drive
Missoula, MT 59802
Voice: (406) 829-1384
Fax: (406) 829-3593

Award: $100,000 (approximate)
Principal Investigator: David Optiz
Target Agency: U.S. Army
Phase I Topic: Developing a Seamless Integration Between Machine Learning Techniques and Rule-Based Classification of Remotely Sensed Imagery

Company: Visual Learning Systems, Inc.
4600 Scott Allen Drive
Missoula, MT 59802
Voice: (406) 829-1384
Fax: (406) 829-3593

Award: $70,000
Principal Investigator: Stuart Blundell
Target Agency: NSF
Phase I Topic: Discovery Analyst: A Data Mining System for Image Databases

Phase II SBIR

Company: MSE Technology Applications, Inc.
200 Technology Way
Butte, MT 59701
Voice: (406) 494-7100
Fax: (406) 404-7230

Award: $296,000
Principal Investigator: Dr. Garth James
Target Agency: USDA
Phase II Topic: Biofilm Barrier for In-Situ Groundwater Denitrification

Company: MSE Technology Applications, Inc.
200 Technology Way
Butte, MT 59701
Voice: (406) 494-7100
Fax: (406) 404-7230

Award: $750,000
Principal Investigator: Dr. Garth James
Target Agency: DARPA
Phase II Topic: Biofilm Capture of Chemical and Biological Warfare Agents

WE DO OUR BEST TO IDENTIFY EVERY AWARD WINNER, BUT WE MAY HAVE ACCIDENTALLY MISSED YOUR COMPANY. IF WE HAVE, PLEASE NOTIFY LINDA BRANDER (406) 841-2749 or lbrander@state.mt.us

4.0 Solicitations

Open Solicitations			
Program	**Release Dates**	**Accepts Proposals**	**Closing Dates**
HHS/NIH-NIMH SBIR **National Institute of Mental Health**	5 Dec 2002	5 Dec 2002	20 Feb 2003
DOC-NIST	1 Nov 2002	1 Nov 2002	15 Jan 2003
DOE SBIR	15 Oct 2002	15 Oct 2002	14 Jan 2003
DoD SBIR - 2003.1	1 Oct 2002	2 Dec 2002	15 Jan 2003
NSF SBIR/STTR for BT & EL only	1 Mar 2002	1 Oct 2002	22 Jan 2003
HHS/NIH SBIR/STTR (Grants) AIDS Related Topics Only	15 Jan 2002	15 Jan 2002	1 May 2002 1 Sep 2002 1 Jan 2003

For a complete overview of all solicitations go to: http://www.zyn.com/sbir/scomp.htm

5.0 National Conferences & Workshops

March 11 - 14, 2003 -National SBIR Early Spring Conference - Albuquerque, NM

This conference is sponsored by the National Science Foundation in association with the Dept. of Defense (DoD), the Small Business Administration and all 10 SBIR agencies. SBIR Program Managers and representatives from all participating agencies will provide insight into how to work with their respective agencies as well as answer questions during one-on-one opportunities. The conference will be held at the Hyatt Regency, Albuquerque

Contact: Yvonne Brandau
Email: ybrandau@iirusa.com
Phone: 800-345-8016 X3705

April 22 - 24, 2003 - National SBIR Spring Conference - Washington, DC

Attend the National SBIR Conference and learn how to successfully apply for and manage SBIR and STTR awards for your small business R&D project. Both the SBIR and STTR programs offer a wide cross-section of federal research and development funding awards in a variety of fields. Their common goal is to create new technologies that will solve America's most important scientific and technical challenges. During this annual event, the DoD and other federal agencies gather together along with a team of national experts to guide potential applicants through each phase of the SBIR and STTR programs.

Contact: Sharon DelaBarre at DelaBarre & Associates
Email: sharon@dbamlg.com
Phone: 360-683-5742

6.0 Resources

There are numerous consulting firms that specialize in commercialization planning and development. Those listed here were sources for this issue of the newsletter or were referred to by the interviewees.

www.webpatent.com
Bob Hunter is a registered patent agent as well as research director for YES Technologies. His web site offers numerous resources and information regarding the patent and commercialization processes. Specifically see:
http://www.webpatent.com/content/money.htm
http://www.webpatent.com/news/news10_00.htm#I

Robert (Bob) Hunter, Ph.D.
65-1116 Hoku'ula Road
P.O. Box 2709
Kamuela, HI 96743
Phone: 808-885-4194
Fax: 808-885-4114
Email: bob@webpatent.com

www.thomasregister.com
Thomas Registry of American Manufacturers

www.oit.doe.gov/inventions/inventions/ii.shtml
Useful U.S. Department of Energy publications, including "From Invention to Innovation" (order # DOE/GO-10099-810) and "Making the Licensing Decision" (DOE/GO-10098-667), are available as downloads. You can also order them by calling 1-800-862-2086.

http://www.inventorfraud.com/
The National Inventor Fraud Center provides useful information on protecting your invention as well as licensing.

www.mohawkresearch.com
Marcia Rorke, President and Founder
Mohawk Research Corporation
915 Willowleaf Way
Rockville, MD 20854
Phone: 301-762-3171
Fax: 301-762-3172
Email: mrocke@mohawkresearch.com

More information can also be found at the SBIR agency web sites